



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/652,205

09/02/2003

Yo Yanagida

06753.0563

1713

22852

7590

06/26/2006

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP

901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

CAVALLARI, DANIEL J

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary	Application No.	Applicant(s)	
	10/652,205	YANAGIDA ET AL.	
	Examiner	Art Unit	
	Daniel J. Cavallari	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The examiner acknowledges a submission of the amendment filed on 4/12/2006.
The amendments to claims 1-3 are accepted.

Response to Arguments

The previously made claim objections of claims 1 and 3 as well as the previously made 112 second paragraph rejection of claim 1 has been withdrawn in view of the amendments.

Applicant's arguments, filed 4/12/2006, with respect to claims 1-3, have been fully considered and are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "a comparator unit configured to receive the voltage potential for comparison and the communication signal [*sic*], to amplify the communication signal which is superimposed and modulated on direct-current power on a power line, and to output an output signal comprising the amplified communication signal, wherein the voltage potential is substantially independent of the output signal.") are not positively recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The examiner points out the cited text from Counsell (Column 2, Lines 53-56) in which Counsell teaches a comparator (U1) which is configured to receive a voltage

Art Unit: 2836

potential at pin 2 and compare the voltage potential to a communication signal at pin 2.

The applicant fails to disclose any specific limitation as to the amplification and therefore, the unity gain amplifier of Counsell (See Figure 3) further meets this limitation.

The functional language used “a comparator configured to...” does not positively recite the limitations of the configuration. If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

The applicant acknowledges that Counsell teaches a comparator and the comparator of Counsell is configurable to provide the configuration recited in the claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to Claim 1

The phrase “a comparator unit configured to receive the voltage potential for comparison and the communication signal, to compare the voltage potential for comparison...” is grammatically incorrect. It is unclear what is meant by “...receive the

Art Unit: 2836

voltage potential for comparison and the communication signal.." as well as "...to compare the voltage potential for comparison..." The claim will be examined as best understood to mean "...a comparator configured to receive the voltage potential for comparison with the communication signal, to compare the voltage potential with the communication signal..."

The term "substantially" in claim 1 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Furthermore, it is unclear how an output of a comparator can be "independent" from its inputs. The limitation will be examined as best understood in which "substantially independent" will be taken to mean "different".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Counsell et al. (US 5,859,584).

In regard to claim 1

Counsell et al. (Hereinafter referred to as Counsell) teaches:

- A power line communication device for a vehicle (See Column 1, Lines 8-11)
- A voltage follower, read on by components C5, R5, R7, C3, R8) (See Figure 3) which receives a communication signal from an input terminal (12V Line) (See Figure 3 & Column 2, Lines 44-52) and generates a voltage potential for comparison by a comparator (See Column 2, Lines 44-52) which follows DC voltage fluctuations at the input terminal (12V Line) and outputs the voltage potential and communication signal to a comparator, pins 2 & 3 respectively (See Figure 3) which provides unity gain amplification (See Figure 3 & Column 2, Lines 42-53) producing an output communication signal at data output terminal (RXO) (See Figure 3).
- A comparator (U1) configured to receive the voltage potential at Pin 2 (See Figure 3) and communication signal at pin (3) (See Figure 3) wherein the voltage potential and communication signal are different than the output produced at RXO (See Figure 3).
- Wherein the power line communication (Receiver, See Figure 3) device is included in an electronic control unit (10 & 11)(See Figure 1) for controlling respective functions of a vehicle (See Column 1, Lines 8-11) and connected to the power line (12V, See figure 1) supplying DC power to the vehicle (See Column 1, Line 57 to Column 2, Line 3) and configured to receive communication signals, read on by the receiver (Receive) (See Figure 1 & Column 2, Lines 39 to 52) superimposed on the DC power line, separate and extract the communication

signal superimposed on the DC component and superimpose and transmit the generated communication signal, read on by the transmitter (Transmit) (See Figure 1 & Column 2, Lines 4-38) and transmits and receives the communication signal between electronic control units (10 & 11) (See Figure 1).

In regard to Claims 2 & 3

- A comparator (U1) comprising a first and second input, read on by pins 3 & 2 respectively (See Figure 3)
- The voltage follower comprising voltage dividing resistor (R7 & R8) connected in series between a high voltage power source (12V Line) and a low voltage power source (5V) (See Figure 3)
- A capacitor (C3) configured to remove a given frequency component from the communication signal (See Figure 3 & Column 2, Line 53 to Column 3, Line 3)
- A first junction of the voltage dividing resistors, read on by the connection of resistor R8 with the first input (pin 3) of comparator (U1) and a second junction (Resistor R7) connected to the second input (pin 2) of comparator (U1) and the capacitor (C3) connected between the second input terminal (2) and the low voltage power source (5V)
- A filter, read on by capacitor (C5) configured to remove a given frequency component from the reception communication and obtain a DC component in which the filter is connected to the first input terminal (pin 3) (See Figure 3 & Column 2, Line 53 to Column 3, Line 3)

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Cavallari whose telephone number is (571)272-8541. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2836

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Cavallari

June 13, 2006

A handwritten signature in black ink, appearing to read 'Robert L. Deberadins', written in a cursive style.

ROBERT L. DEBERADINS
PRIMARY EXAMINER